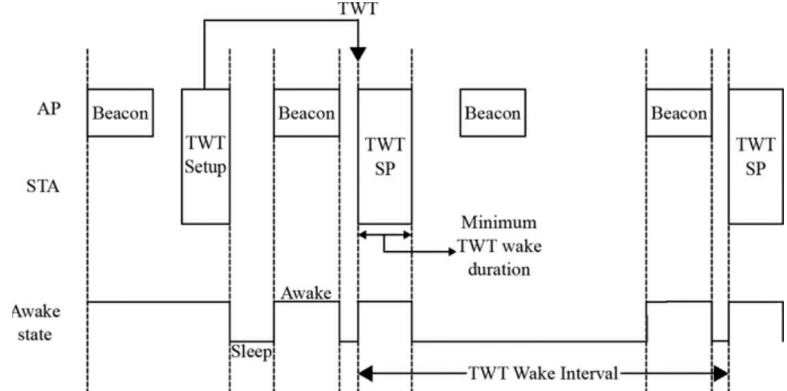


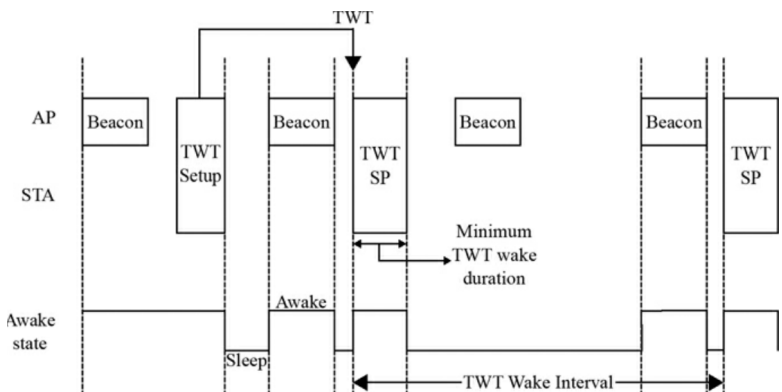
# EXHIBIT 9

## U.S. PATENT NO. 8,036,152

**INFRINGEMENT BY INTEL'S ACCUSED GATEWAY PRODUCTS, INTEL'S ACCUSED ADAPTER PRODUCTS, AND INTEL'S ACCUSED WI-FI INTEGRATED PROCESSORS**

Claim:		Infringement
1	a wireless transceiver having an active mode in which power is consumed, and a sleep mode in which power is conserved;	Intel processors and wireless adapters utilizing Wi-Fi 6 and/or 6E including, but not limited to, the AX101, AX200, AX201, AX210, AX211, AX411 adapters, and Intel wireless adapters utilizing Wi-Fi 7 including, but not limited to, the BE200 and BE202 adapters (collectively, Intel's Accused Adapter Products), and Intel's 10 <sup>th</sup> to current generation processors with integrated Wi-Fi 6 and above, as well as the Intel® Home Wi-Fi Chipset WAV600 Series, including the WAV654, (Intel's Accused Gateway Products) which are included in Intel-based Wi-Fi 6 routers and gateways, include, by virtue of their compliance with Wi-Fi 6 and/or 6E (and above) a target wake time (TWT) which is a specific time or set of times for individual stations (STAs) to wake in order to exchange frames with other STAs. Accordingly, a station, such as laptop, smartphone, or any internet of things device has a transceiver cycling between an awake active mode in which power is to exchange information and a sleep mode in which power is conserved.
	a timer operatively coupled to the wireless transceiver used to indicate when to switch from sleep mode to active mode based on time slot assignment information received by the wireless transceiver; and	The operation of TWT is shown in the figure below.

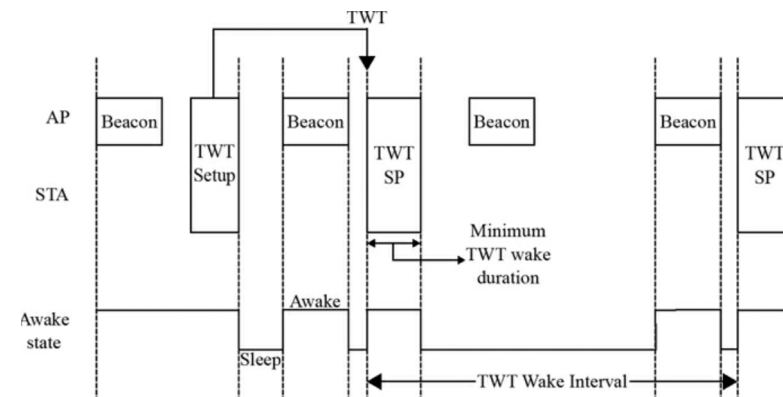
		 <p>As can be seen, an access point (AP), such in Intel-based Wi-Fi 6 routers and gateways utilizing the Intel® Home Wi-Fi Chipset WAV600 Series, including the WAV654, (Intel's Accused Gateway Products), sends TWT setup information to the station (STA) transceiver in a client device, like a laptop, phone, or other device including an Intel wireless adapter utilizing Wi-Fi 6 and/or 6E including, but not limited to, the AX101, AX200, AX201, AX210, AX211, AX411 adapter, and Intel wireless adapters utilizing Wi-Fi 7 including, but not limited to, the BE200 and BE202 adapters, and Intel's 10<sup>th</sup> to current generation processors with integrated Wi-Fi 6 and above, indicate to the device when to switch from the sleep mode to the active mode. This information is used to set a timer within the device.</p>
	processing circuitry operatively coupled to the wireless transceiver and the timer, the processing circuitry arranged to switch the wireless transceiver from the sleep mode to the active mode in response to input from the timer,	When the timer goes, at the beginning of each TWT session period or service period (TWT SP) the STA, which includes one of the above Intel chips or wireless adapters, is expected to wake up so it can transmit or receive data.

	<p>the processing circuitry also arranged to monitor a first channel for a beacon during the active mode and, if no beacon is detected, increasing a channel number to a second channel and resetting the timer.</p>	<p>As the below figure demonstrates, the Intel chips or wireless adapters in the laptop, phone, or other client device, also is active during a beacon period.</p>  <p>If no beacon is detected, the Wi-Fi 6 router may have switched the network's channel. To facilitate reconnecting devices that were asleep for a channel switch, Wi-Fi 6 utilizes so that a STA can efficiently move their activity when the absence of beacon change is noticed. Accordingly, when a STA such as a laptop, phone, or IoT device connects to a network, it receives an future channel guidance element informing it about the likely future channel if the sending router changes channels of operation. As such, when the transceiver of the device wakes up, it will monitor the first channel for beacon, as shown in the above, figure. If no beacon is detected, it utilizes future channel guidance to increase the channel number to the second likely channel. It will then reset its timer and wait for the next expected transmission from the router.</p>
7	A method of facilitating data exchange, comprising:	

wirelessly receiving information assigning a time slot for a portable client device to wirelessly communicate data;

Intel processors and wireless adapters utilizing Wi-Fi 6 and/or 6E including, but not limited to, the AX101, AX200, AX201, AX210, AX211, AX411 adapters, and Intel wireless adapters utilizing Wi-Fi 7 including, but not limited to, the BE200 and BE202 adapters (collectively, Intel's Accused Adapter Products), and Intel's 10<sup>th</sup> to current generation processors with integrated Wi-Fi 6 and above, as well as the Intel® Home Wi-Fi Chipset WAV600 Series, including the WAV654, (Intel's Accused Gateway Products) which are included in Intel-based Wi-Fi 6 routers and gateways, include, by virtue of their compliance with Wi-Fi 6 and/or 6E (and above), a target wake time (TWT), which is a specific time or set of times for individual stations (STAs), i.e. client devices with Intel wireless adapters and chips, to wake in order to exchange frames with other STAs. Accordingly, a station, such as laptop, smartphone, or any internet of things device has a transceiver cycling between an awake active mode in which power is to exchange information and a sleep mode in which power is conserved.

The operation of TWT is shown in the figure below.



		As can be seen, an access point (AP), such as Intel-based Wi-Fi 6 routers and gateways, sends TWT setup information to the station (STA) transceiver (i.e., Intel processor with integrated wireless or wireless adapter) in a laptop, phone, or other device assigning a time slot for the device when to switch from the sleep mode to the active mode to wirelessly communicate data.
	placing the wireless transceiver in a sleep mode for a predetermined amount of time;	Based on the TWT setup information received the transceiver of the device will enter a sleep mode for a predetermined amount of time.
	setting a timer to indicate when to switch from sleep mode to an active mode based on the time slot assignment information; and	The predetermined amount of time is used to set a timer.
	activating the wireless transceiver from the sleep mode at a beginning of the time slot in response to input from the timer;	When the timer goes, at the beginning of each TWT session period or service period (TWT SP) the STA is expected to wake up so it can transmit or receive data.
	monitoring a first channel for a beacon;	<p>As the below figure demonstrates, the transceiver of the laptop, phone, or other IoT device, also is active during a beacon period.</p> <p>As such, the transceiver is active to monitor a first channel for a beacon.</p>

	<p>if no beacon is detected, increasing a channel number to a second channel; and resetting the timer.</p>	<p>If no beacon is detected, the Intel-based wireless router may have switched the network's channel. To facilitate reconnecting devices that were asleep for a channel switch, Wi-Fi 6 utilizes so that a STA can efficiently move their activity when the absence of beacon change is noticed. Accordingly, when a STA such as a laptop, phone, or IoT device connects to a network, it receives a future channel guidance element informing it about the likely future channel if the sending router changes channels of operation. As such, when the transceiver of the device wakes up, it will monitor the first channel for beacon, as shown in the above, figure. If no beacon is detected, it utilizes future channel guidance to increase the channel number to the second likely channel. It will then reset its timer and wait for the next expected transmission from the router.</p>
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